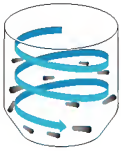
DC08 + DC08 telescope service manual

dyson

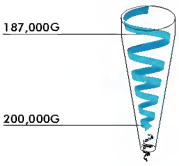
Issued 06/04

Root[12] Cyclone™ Technology



Spinning air creates centrifugal force.

By making the air stream spin, dirt and debris are subjected to centrifugal force. The dirt and debris are thrown out of the airflow.



Higher speed gives higher centrifugal force.

A cone shape speeds up the spinning air to create even greater centrifugal forces. This removes microscopic dust particles out of the airflow. For example, Formula 1 racing drivers can be subjected to 5 G-forces. Dyson DC08 G-forces are 40,000 times greater.

More cyclones create higher suction power.

By spreading high volumes of air through many cyclones, new Root[12] Cyclone™ technology has even higher suction power. This means it picks up even more dust.

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1.1 Introduction

This manual is written specifically for Dyson trained engineers and covers the DC08 and DC08 telescope ranges. The service instructions assume that the engineer has the approved tools and test equipment with them.

1.2 DC08 variants

1.3 DC08 telescope variants

DC08

DC08 allergy

DC08 carpetpro + allergy

DC08 animal

The DC08 range advances on from the DC05. The main developments are the Root[12] Cyclone™ system, which gives added airwatts, and the Contacthead™, which maintains constant contact with the floor for higher dust pick up. The DC08 telescope has the added advantages of a telescopic wand and wrap around hose for easy carrying and storage. Some models also include the dyson designed turbine head that has a manually controlled brush bar, which can be turned on or off for all floor types.

1.4 Specifications

DC08

	DC08 Steel/Yellow	DC08 turbobrush Silver/Turquoise	DC08 hepa Blueberry/Turquoise	DC08 + hepa turbobrush Purple/Lime
Root[12] Cyclone™ Technology	✓	✓	✓	✓
Airwatts (constant)	330	330	330	330
Contact head™	✓	✓	✓	✓
Turbo brush	✗	✓	✗	✓
Pre filter	Lifetime	Lifetime	Lifetime	Lifetime
Post filter	Pad	Pad	HEPA	HEPA
Bin capcity	2 litres	2 litres	2 litres	2 litres
Cable length	6.5m	6.5m	6.5m	6.5m
Maximum reach	10m	10m	10m	10m
Height	344mm	344mm	344mm	344mm
Width	292mm	292mm	292mm	292mm
Depth	430 mm	430 mm	430 mm	430 mm
Operational weight	8.22 kg	8.22 kg	8.22 kg	8.22 kg
Main motor	1400w	1400w	1400w	1400w

DC08 telescope

	DC08 telescope Steel/Yellow	DC08 telescope (allergy) Steel/White	DC08 telescope (allergy + carpetpro)* Steel/Steel	DC08 telescope (animal)** Steel/Lavender
Root[12] Cyclone™ Technology	✓	✓	✓	✓
Airwatts (constant)	300	300	300	300
Contact head™	✓	✓	✗1	✗
Turbine head	✗	✗	✓2	✓
Mini turbine head	✗	✗	✗	✓3
Hard floor tool	✗4	✗	✗5	✗5
Pre-filter	Lifetime	Lifetime	Lifetime	Lifetime
Post filter	Pad	HEPA	HEPA	HEPA
Bin capcity	2 litres	2 litres	2 litres	2 litres
Cable length	6.5m	6.5m	6.5m	6.5m
Maximum reach	10m	10m	10m	10m
Height	377mm	377mm	377mm	377mm
Width	321mm	321mm	321mm	321mm
Depth	494 mm	494 mm	494 mm	494 mm
Operational weight	8.22 kg	8.22 kg	8.22 kg	8.22 kg
Main motor	1400w	1400w	1400w	1400w

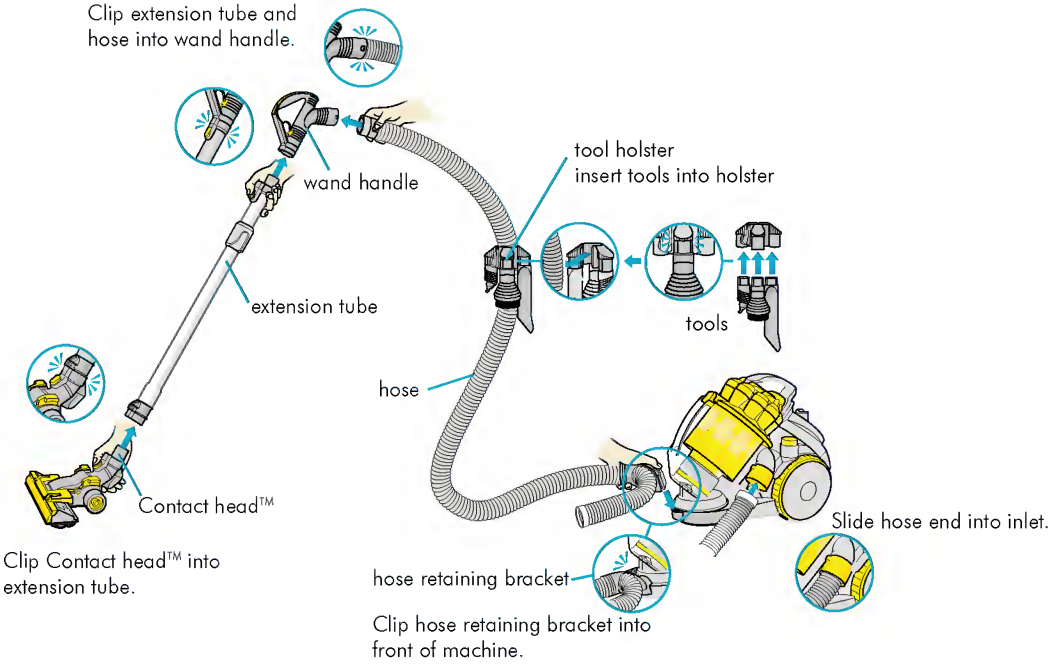
*allergy parquet in Euro *turbine in ANZ
**turbine in ANZ

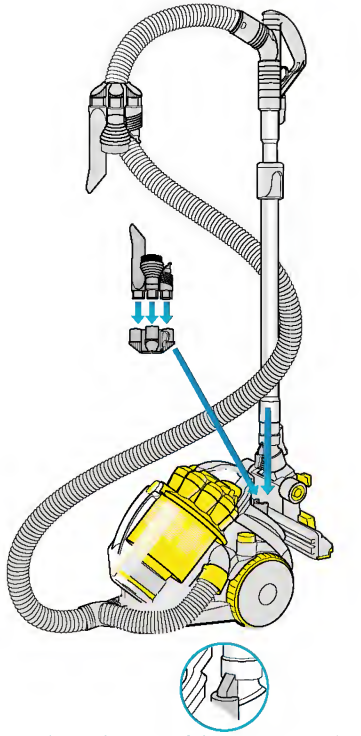
1 Included in Euro builds 2 Not included in Euro builds 3 Not included in ANZ builds

4 Included in Ireland builds 5 Included inEuro and ANZ builds

Overview

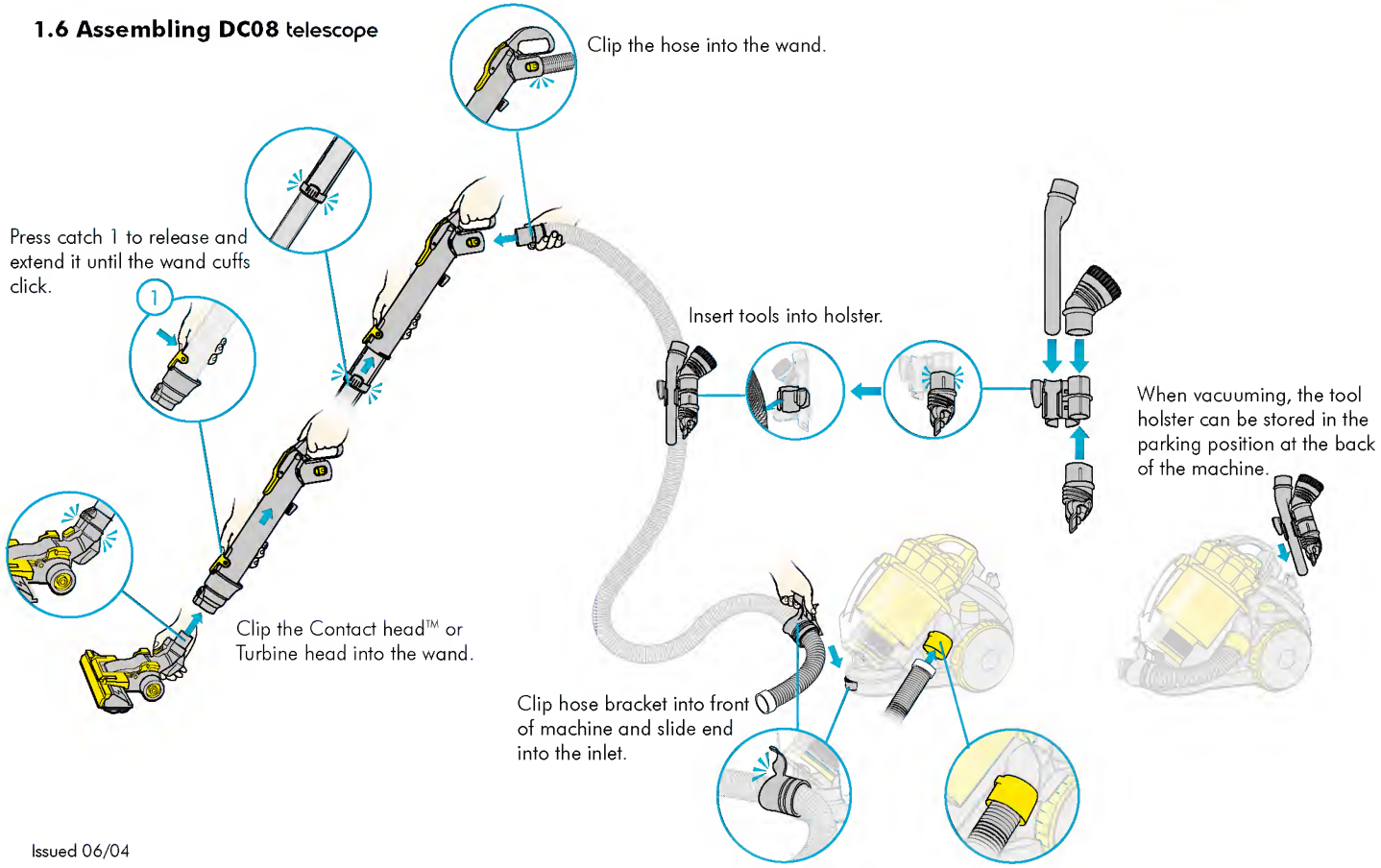
1.5 Assembling DC08





The parking yoke at the rear of the DC08, can be used for storage of either the tool holster when the machine is in use, or the wand for stable and convenient storage.

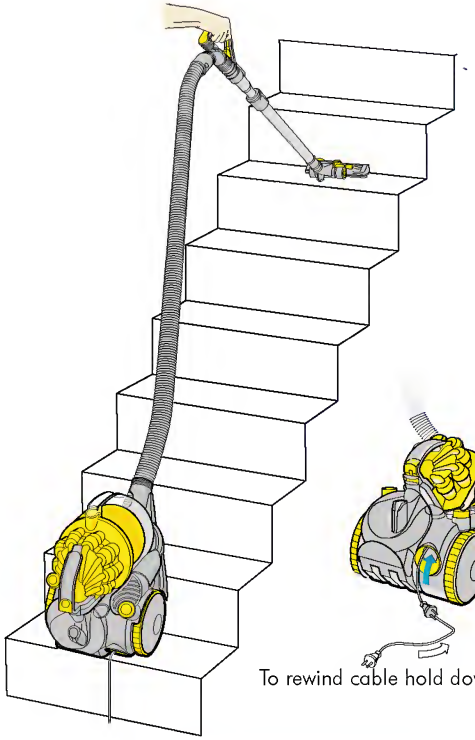
1.6 Assembling DC08 telescope



1.7 Operation

Grip cuff firmly to extend the extension tube.

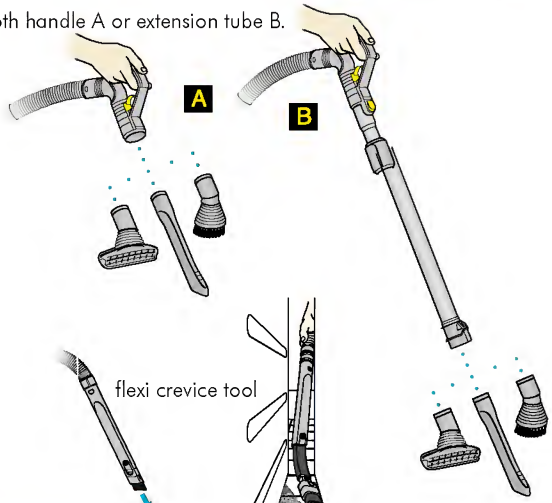
Always extend the cable to the red tape. Press the on/off button to start the machine.



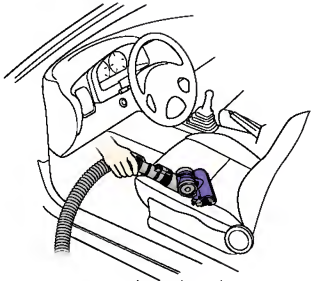
Always work with the machine below you on the stairs.

To rewind cable hold down rewind button.

Tools fit onto both handle A or extension tube B.



flexi crevice tool



mini turbine head

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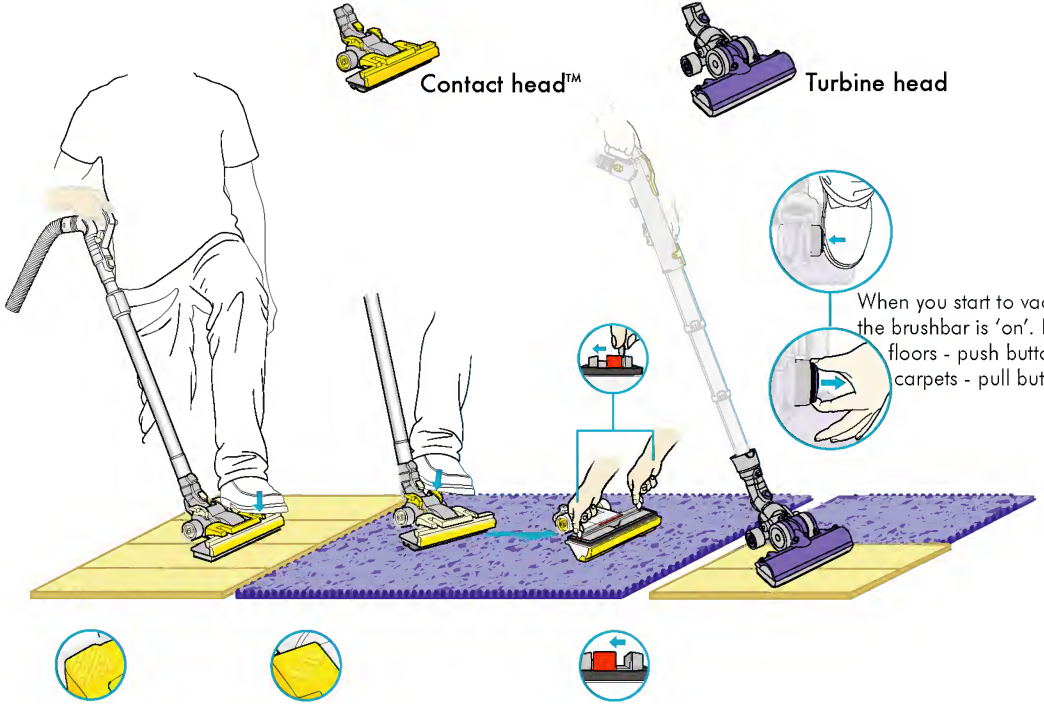
1.7 Operation (continued)



When you start to vacuum the the brushbar is 'on'. For hard floors - push button in. For carpets - pull button out.

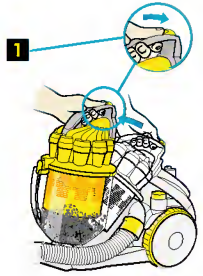
Pull trigger and hold to reduce suction on curtains/upholstery.

Press front pedal when using on hard floors.

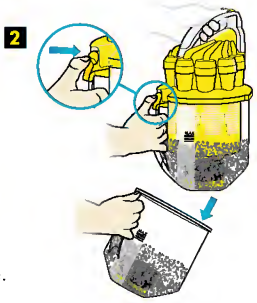
Press rear pedal when using on carpet.

For use on a short pile carpet, slide the gates on either side of the floortool backwards as shown.

1.8 Emptying the clear bin™



Press catch 1 to release cyclone.

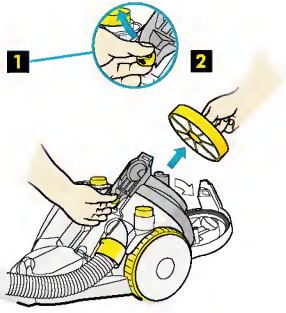


Press catch 2 to release bin.

Empty directly into dustbin.

Remove fine dust with a cloth or small brush.

1.9 Washing the pre-motor filter



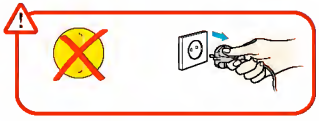
Lift lid catch 1 to access the washable filter 2.

Wash filter and filter case in cold water only.

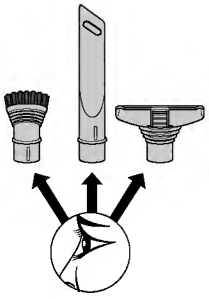
Repeat steps 3 and 4 until water runs clear.

Ensure filter is completely dry before refitting onto machine. Dry for at least 12 hours.

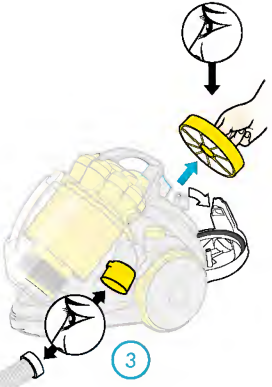
1.10 Finding an clearing blockages



Check 1 and 2 to ensure nothing is obstructing the ducts.

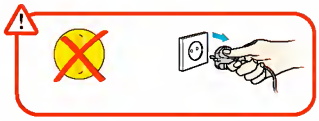


Check the filter dosen't require washing.
Check the accessory tools.

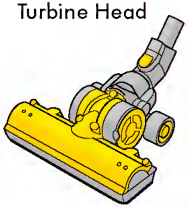


Check 3 where the hose joins the machine.

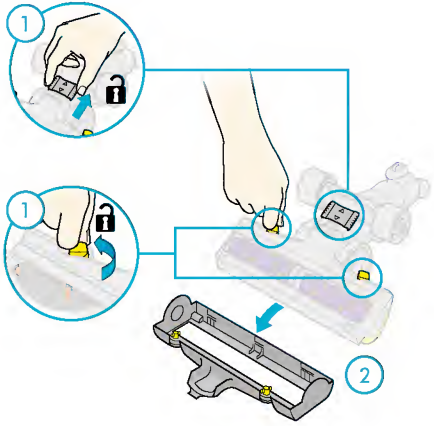
1.10 Finding and clearing blockages (continued)

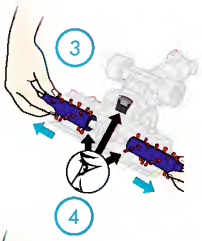


Turbine Head

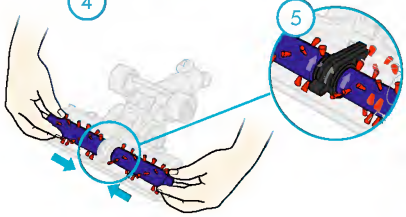


1 Release the catches.
2 Remove the soleplate. 3 Remove both brushbars and clear away thread and hair. 4 Check the duct for blockages.

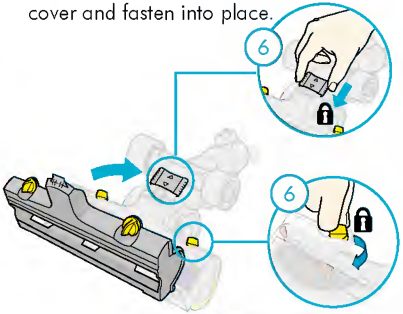




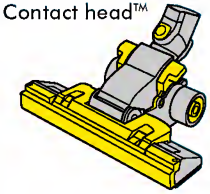
5 To re-assemble, match the arrows on the brushbars to the central support.



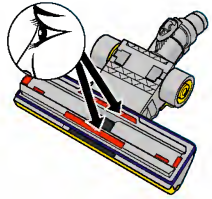
6 Align front of soleplate with front of cover and fasten into place.



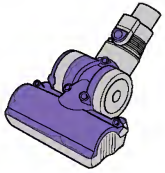
Contact head™



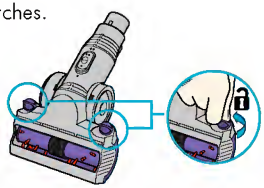
Check the duct for blockages.



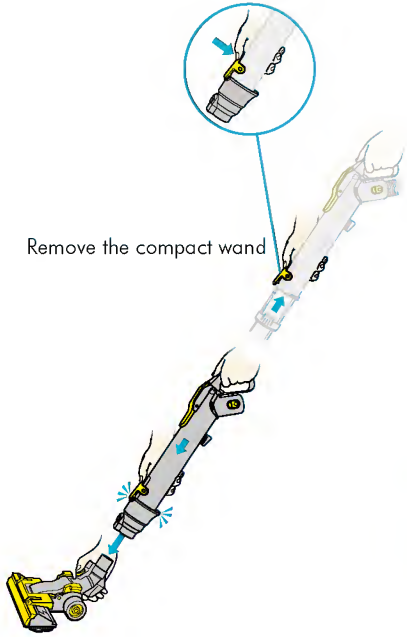
Mini turbine head



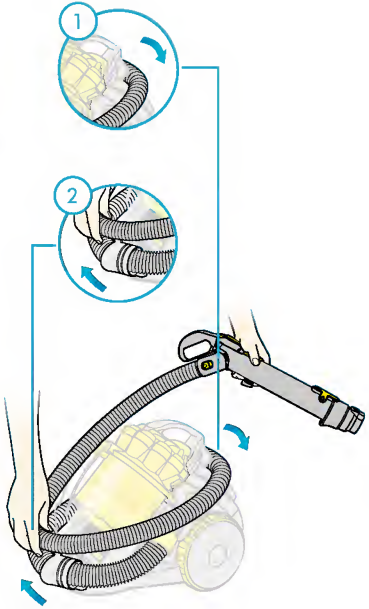
1 Release catches . 2 Remove brushbars and clear away thread and hair 3 To re-assemble re-fasten catches.



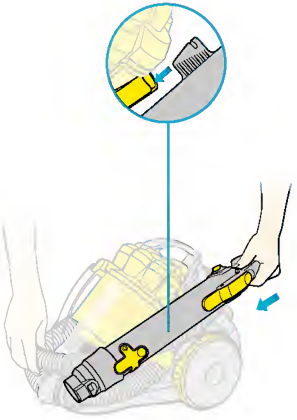
1.11 Storing DC08 telescope



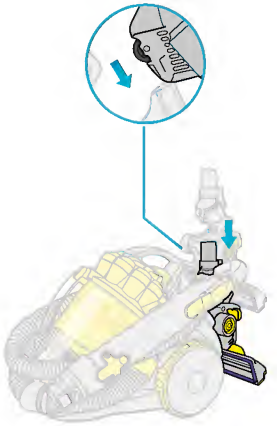
Remove the floor tool



Wrap hose twice around the machine.



Do not press the cyclone release catch whilst carrying.



Store the floor tool in the parking yoke at the back of the machine.

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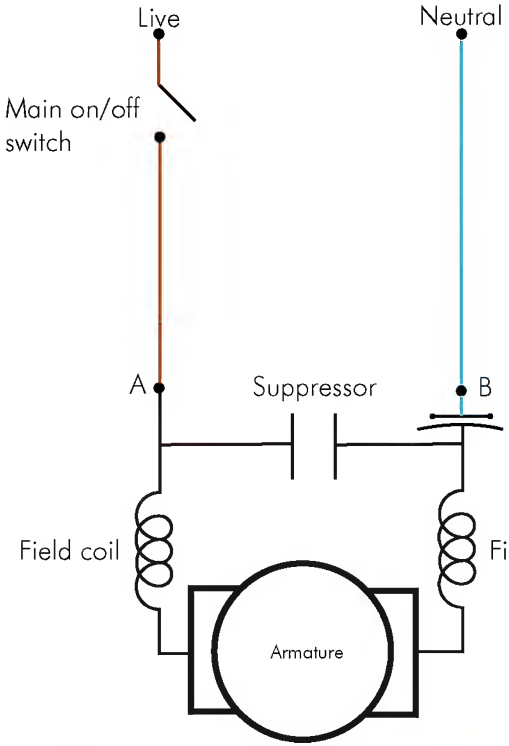
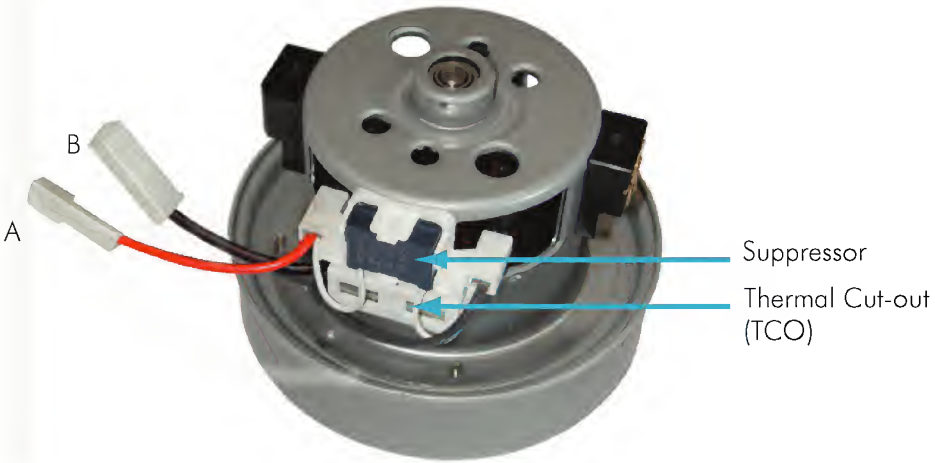
2.2 Circuit overview

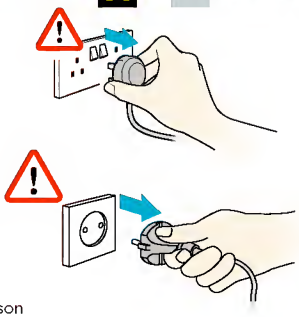


Test Resistance

- Live to A = 1Ω max. (switch in the ON position)
- A to B = 7Ω approx.
- Neutral to B = 1Ω max.
- Live to Neutral = 7Ω approx. (switch in the ON position)
- Across the mains switch = 1Ω max. (switch in the ON position)

Technical





2.1 Electrical safety testing

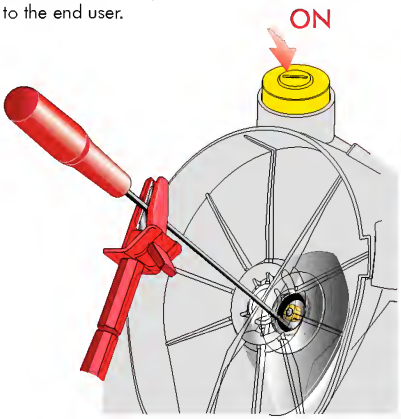
Ensure that at all times during the repair and testing that customers, pets, children and you are not exposed to any Live electrical supply.

Socket polarity check

Test the socket outlet using the 3-pin test unit to ensure that the socket is correctly wired and earthed.

Insulation test

The following test must be performed prior to and upon completion of all repairs to Dyson floorcare products and before any functional checks. You must ensure that a full visual inspection of the product is completed prior to repair. This is vital to avoid any possibilities of personal injury to the end user.

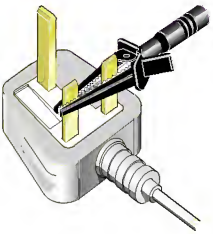


The AVO MEGGER BM401/2 should be used to test the electrical insulation of a Class II appliance; it indicates any electrical leakage.

Procedure for use:

Ensure daily functionality checks on the Megger meter have been completed.

1. Set the range selector switch to 500V position.
2. Ensure the mains switch of the product to be tested is in the on position.
3. Attach the black crocodile clip to the live and neutral pins of the mains plug (bonded).
4. Connect the red crocodile clip to the shaft of a thin, flat bladed screwdriver.
5. Remove the pre-filter cover and pre-filter.
6. Locate the screwdriver through the filter housing grille, onto the motor fan.
7. Press down and hold the 'test' button. Record the reading.



A reading of between 3M ohms and > 999 is acceptable.
2M ohms is the minimal legal requirement. A reading of below 3M ohms is not to Dyson standards. A reading of below 3M ohms is not considered safe and further investigation and rectification must be made before the product is used.
The following components must be visually inspected:

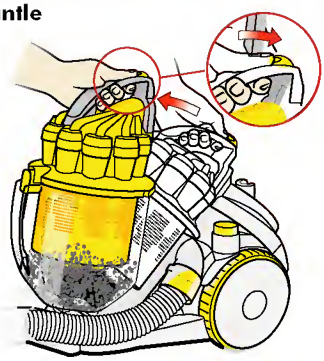
- Cable rewind, both internal and external
- Switches
- Motors
- Carbon build up in motor housing

If you cannot repair a product with an insulation test reading of below 3M ohms you must inform the customer that it is unsafe to use. Please inform the customer of the required actions to repair the product (including the charge structure). If the product is left un-repaired please indicate on your paperwork that the product is electrically unsafe! You must also fit a warning sticker in a visible location on the product.

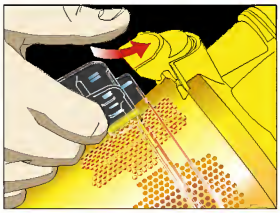
3.1 General note

Before attempting any repairs it is vital to ensure the product is totally isolated from the mains supply and that accidental reconnection cannot occur.

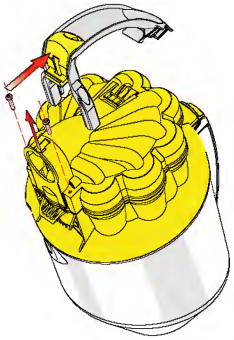
3.2 Dismantle



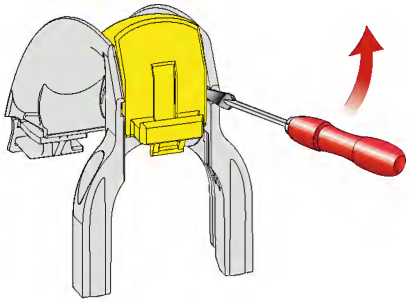
1 Push catch to remove bin and cyclone top assembly



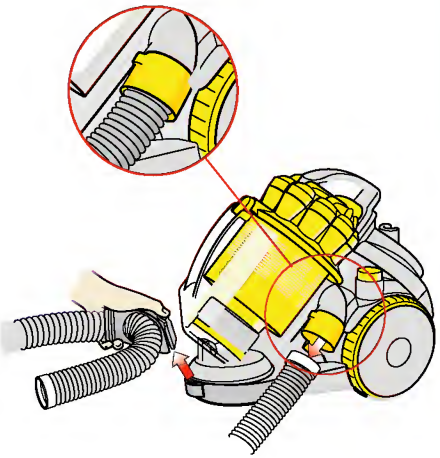
2 To remove bin assembly, press bin release catch and remove.



3 To replace carry handle, unscrew the 2 (T15) Torx screws, lift the handle away from the assembly and slide forward. Refit in reverse.



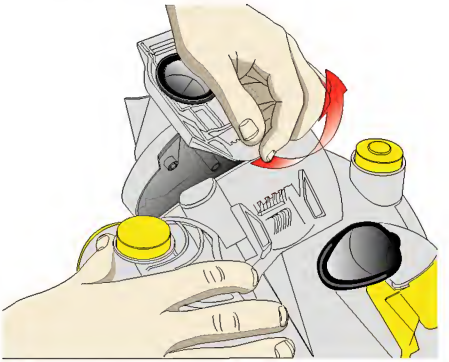
4 To replace cyclone top release catch, carefully prise catch away from handle using a thin bladed screwdriver and remove spring.
To refit, re-locate spring onto the handle. Re-position catch and press into place.

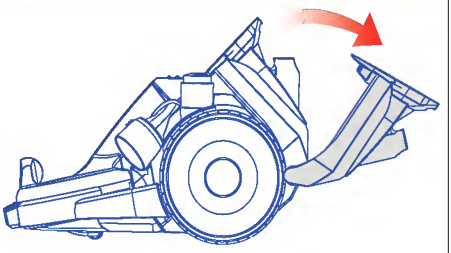


5 Remove hose from inlet. Unclip retaining bracket and remove from the front of the machine.

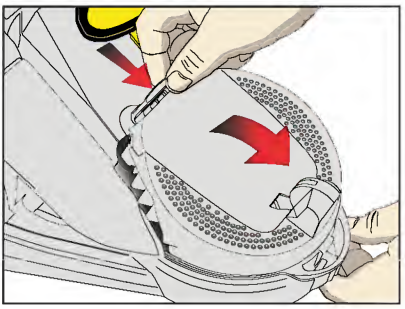
Fitting notes

3.2 Dismantle

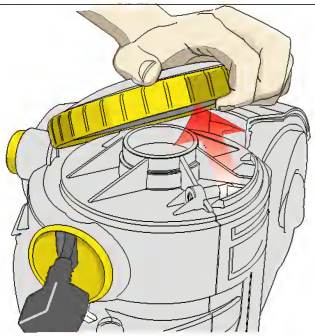




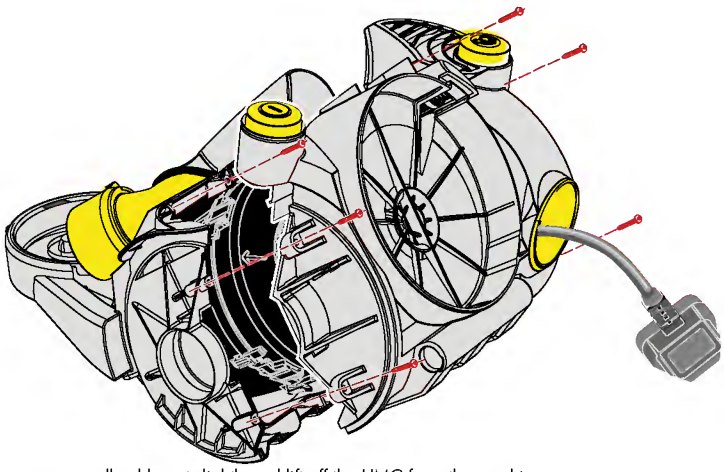
6 Unclip pre-filter cover away from the locating point on the upper motor cover (UMC). Pull pre-filter cover away from the machine until it releases from hinge points. Remove pre filter.



7 Unclip post filter cover catch, and carefully remove the cover. Then remove filter.



8 Firmly pull wheels away from the main body.

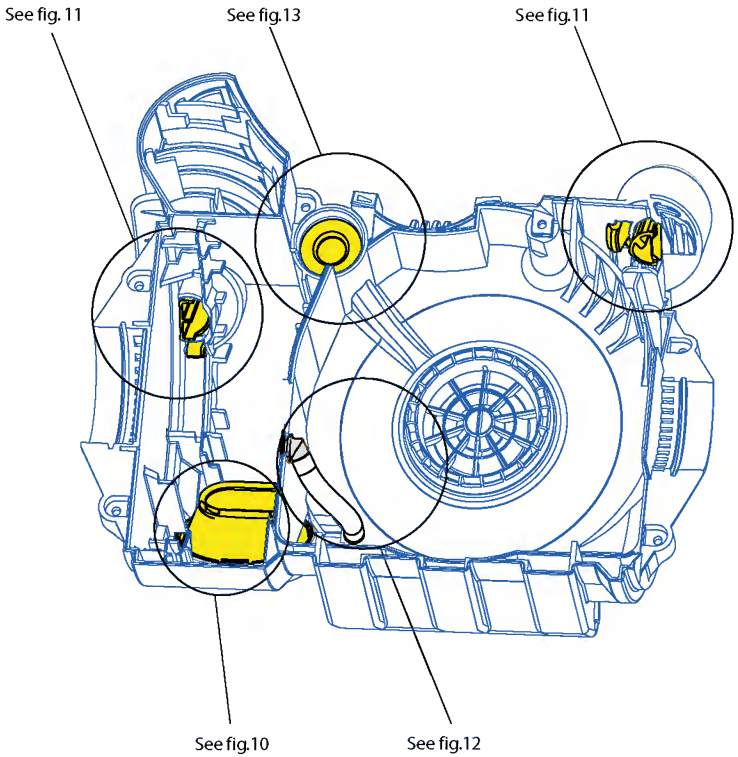


9 Remove 6 (T15) torx screws, pull cable out slightly and lift off the UMC from the machine.

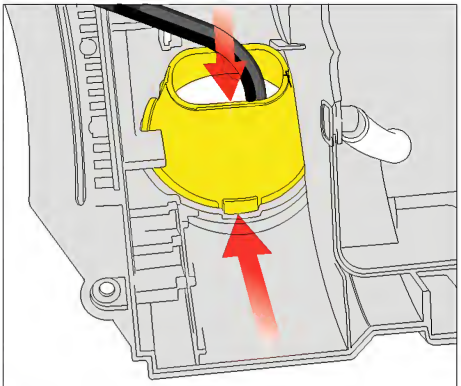
Fitting notes

3.2 Dismantle

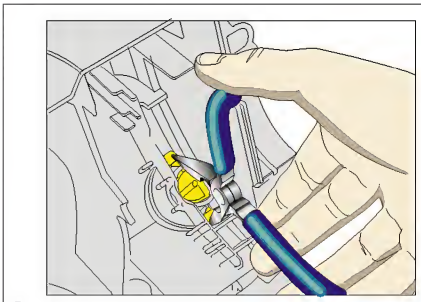
UNDERSIDE VIEW OF THE UMC IDENTIFYING THE POSITIONS OF RELEVANT COMPONENTS



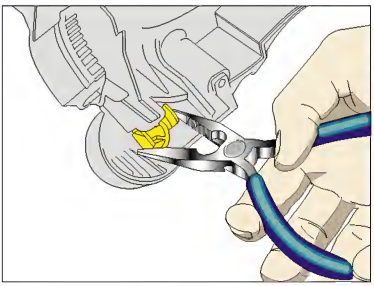
3.2 Dismantle

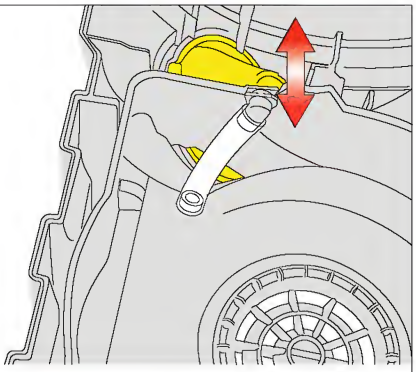


10 Press lower retaining clip from inside the UMC to remove cable collar. Seperate collar from cable.

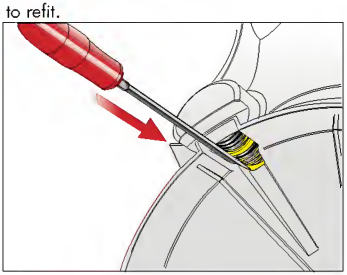


11 To remove either actuators and springs unclip from inside of UMC with the aid of a pair of long nosed pliers.
To refit, locate springs, then actuators from outside of the UMC, and firmly snap in.

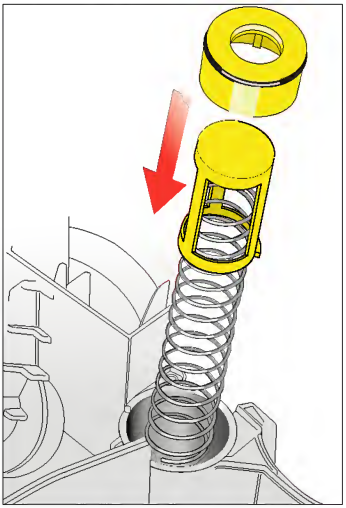




12 The bleed pipe can be simply pulled out and pushed in to refit.



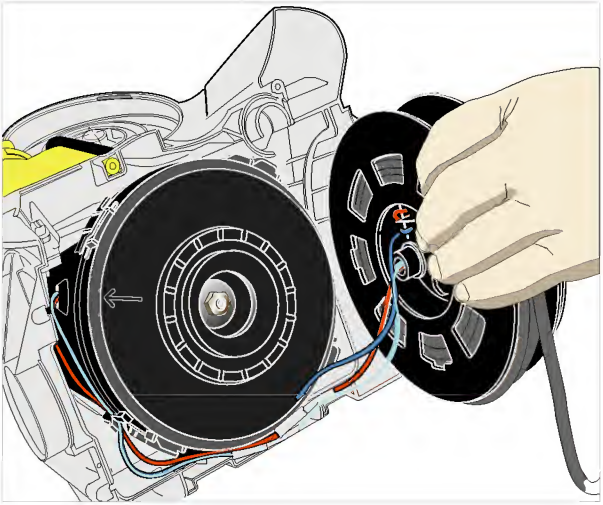
13 To remove the bleed valve, carefully push out from the outside of the UMC using a thin, flat bladed screwdriver.



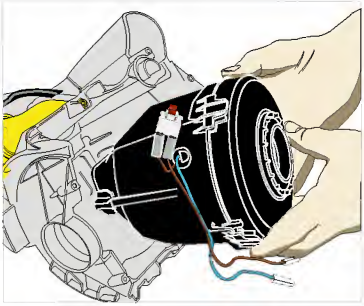
14 To replace the bleed valve, assemble in the above order.

Fitting notes

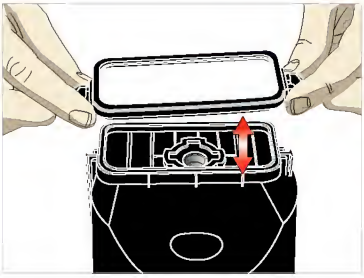
3.2 Dismantle



15 Remove cable reel from lower motor cover (LMC) and unclip fly leads.



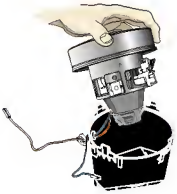
16 Lift out motor bucket and switch from LMC.



17 The motor bucket mount can be removed and replaced if necessary as shown.

18 Remove the motor bucket top by unclipping the four retaining clips.

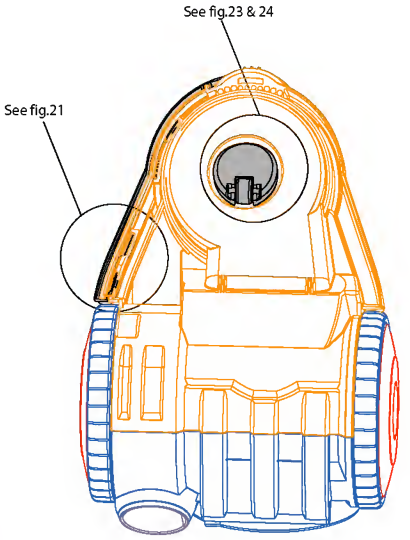
19 Lift off the fan case seal.



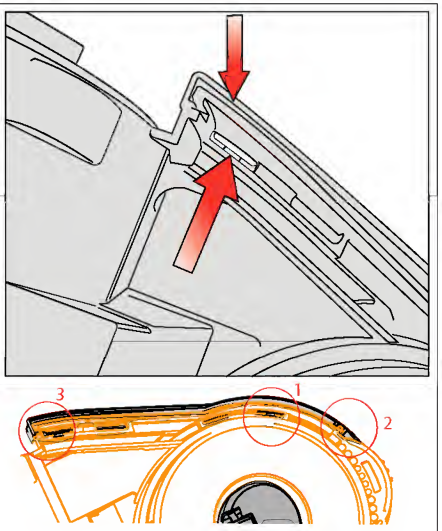
20 Remove the motor from the bucket. Unclip motor wires from wiring harness. Remove wiring harness from the bucket if necessary.

Fitting notes

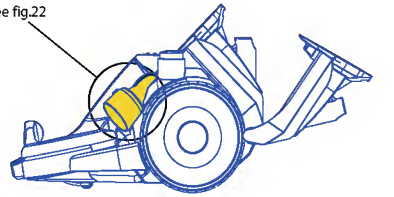
3.2 Dismantle

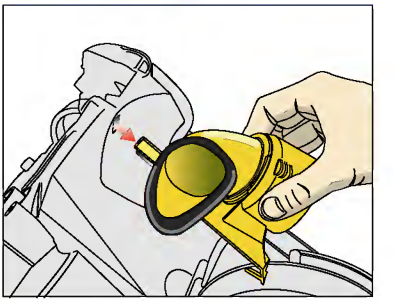


UNDERSIDE VIEW OF THE DC08 IDENTIFYING THE POSITIONS OF RELEVANT COMPONENTS

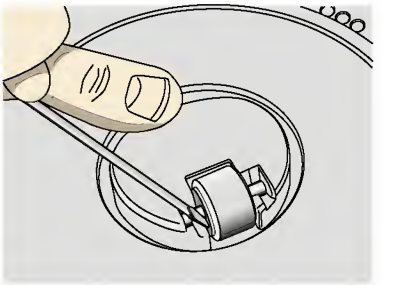


21 To remove bumper strip, unclip retainers and forcefully push bumper strip away from the LMC. To replace, snap clips back in sequence shown.

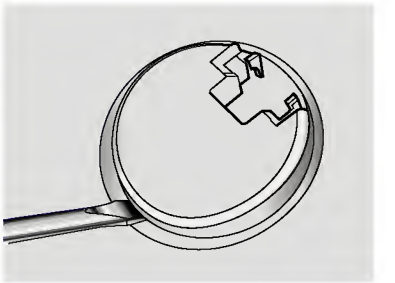




22 Cyclone inlet can be removed once unscrewed from the UMC. To refit slide back in.



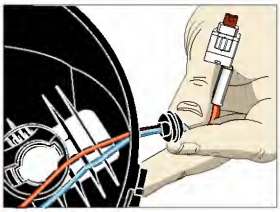
23 Prise castor wheel and axle out of castor body using a thin flat headed screwdriver.



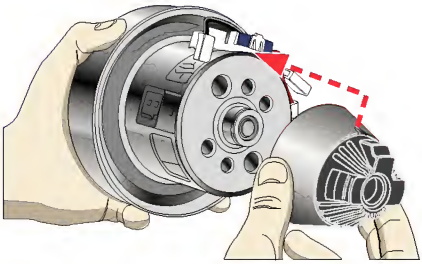
24 Prise castor body away from LMC using a large flat headed screwdriver.

Fitting notes

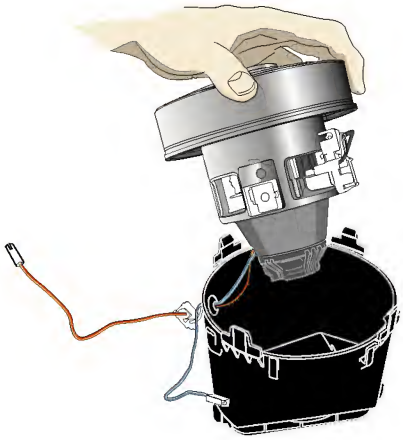
3.3 Assemble



1 Press grommet into retaining hole if previously removed.

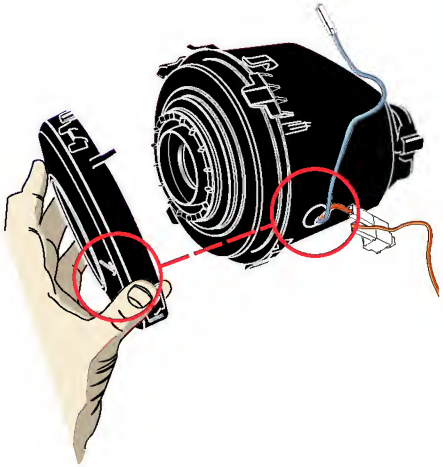


2 Always ensure the motor plate and mount are fitted as shown if previously removed.



3 Re-connect the motor wires to the wiring harness, and position motor into the motor bucket.

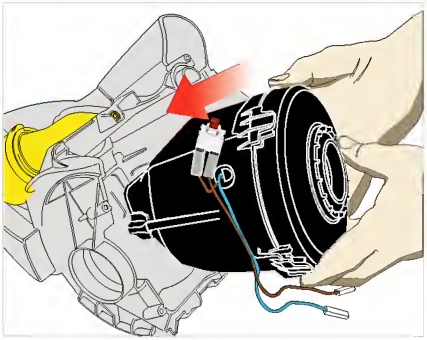
4 Refit fancase seal.

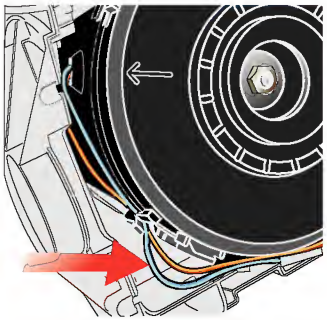


5 Refit motor retaining ring, ensuring that the arrow is pointing toward the wiring grommet.

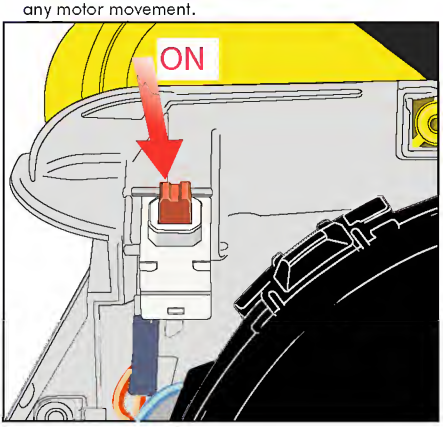
Fitting notes

3.3 Assemble

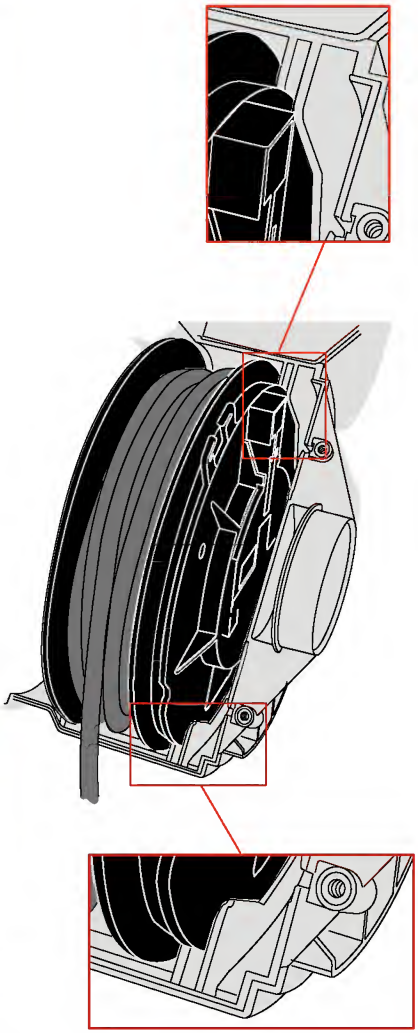




6 Place the motor bucket into the LMC ensuring that extra cable is pulled through as shown, to allow for any motor movement.



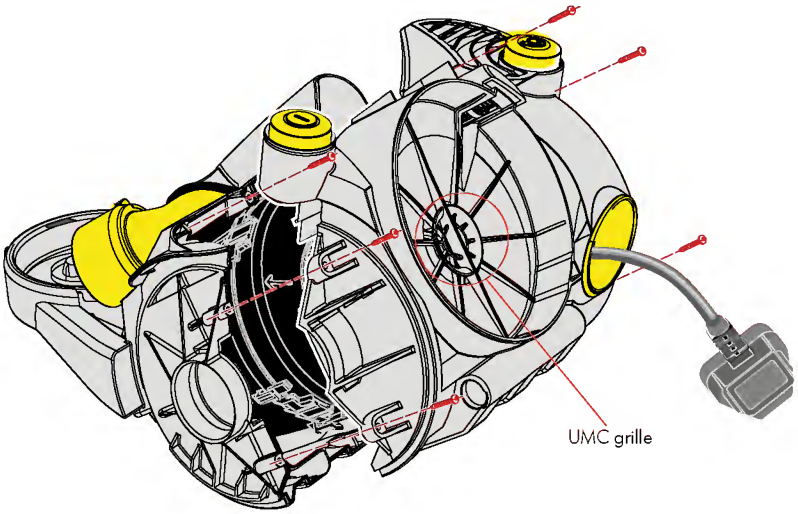
7 Refit the switch as shown ensuring that the switch is in the 'ON' position.



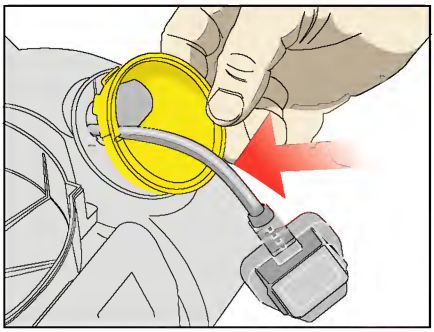
8 Refit the cable reel as shown. Connect wires (live to live, neutral to neutral) and slide into retaining clips.

Fitting notes

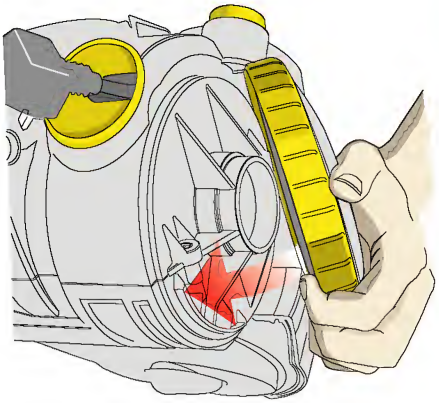
3.3 Assemble



9 Place cable through UMC. Position LMC vertically and position UMC onto it ensuring that the UMC grille is seated centrally to the fancase seal. Refit 6 (T15) torx screws and tighten.

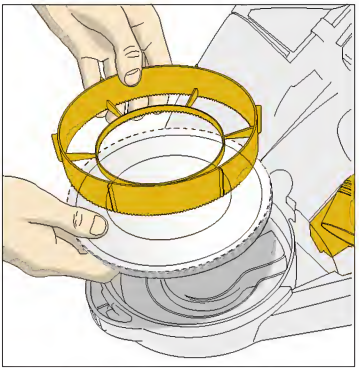


10 Open cable collar and refit over the cable. Clip into the UMC.

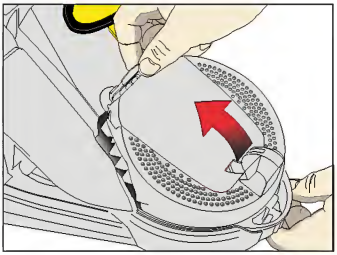


11 Refit wheels. Ensure the overmould tyre is in correct position.

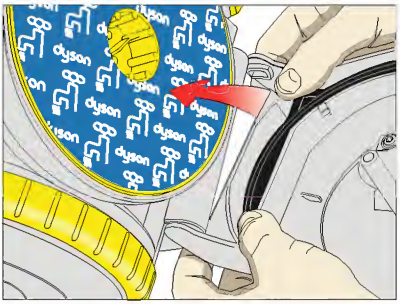
3.3 Assemble



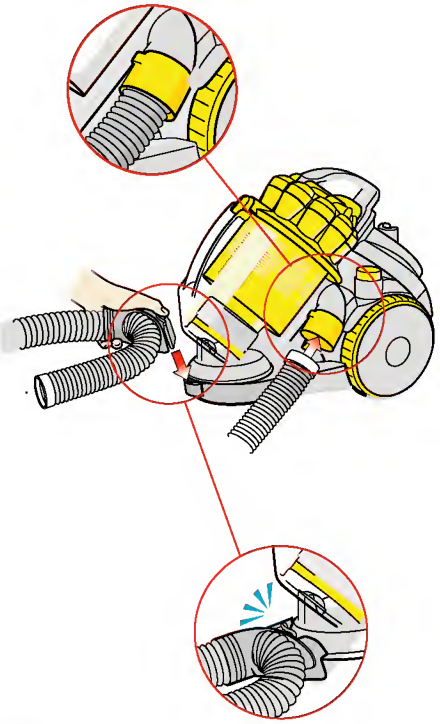
12 Refit post filter as shown, ensuring that filter scrim is positioned with the 'teeth' down (pad filter only).



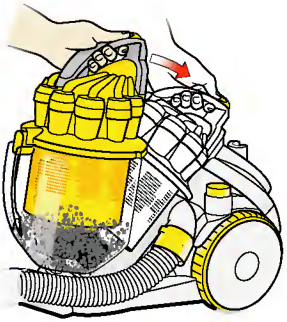
13 Carefully place post-filter cover into the 2 locating points at the front of the machine and 'click shut.



14 Refit pre-filter. Clip pre-filter cover into locating points at rear of machine and close.



15 Place the hose into the cyclone inlet. Clip hose retainer onto the front of the machine.



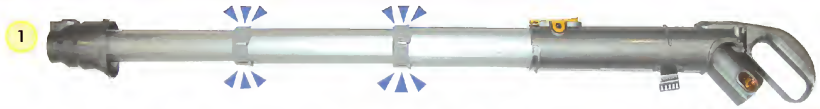
16 Replace bin and cyclone top assembly.

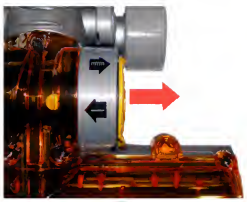
Fitting notes

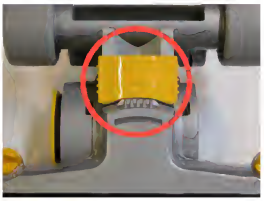
4.1 Fault diagnosis

Symptom: Loss of suction/pick up

Possible cause	Image No.	Action
	1	Ensure telescopic wand is fully extended in use. Check telescopic wand for air leakage. If leakage is found, replace telescopic wand
Brushbar not spinning (DC08 telescope only)	2	Remove soleplate from floor tool and inspect for blockages around brushbar, and in airway. Check bristles for wear. Ensure plunger is set to 'Carpet' mode- out
	3	Check soleplate for air leakage. Ensure catch is fastened correctly
Airway blocked		Remove wand handle from hose and check for blockages
	4	Remove hose from inlet and check both components for blockages
Displaced/missing seals	5	Remove cyclone top/bin assembly and check exhaust seal is correctly fitted
	6	Remove cyclone assembly from bin assembly. Check bin seal is correctly fitted
Blocked pre-filter		Inspect pre-filter assembly for blockages. If the filter is blocked with large debris, check Fine Dust Collector (FDC) seal
Displaced/missing seals	7	Check pre-filter seals are fitted correctly
	8	Remove UMC from LMC. Check fancase seal is seated correctly into motor bucket top
Motor failure		Check motor







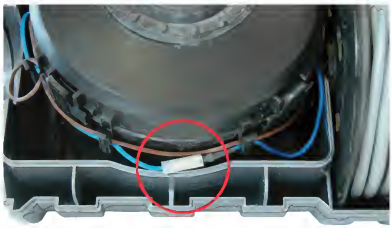
4.1 Fault diagnosis

Symptom: No power

Possible cause	Image No.	Action
Socket wiring fault		Check customer's plug socket-field service only (refer to technical section)
Faulty fuse	1	Check fuse for correct rating-UK only (13amp). Test resistance, (1Ω max.)
Open circuit across cable reel		Visual check of mains cable, plug and fly leads. Test resistance, (1Ω max.)
Loose connection between cable reel & wiring harness	2	Check connections. Test resistance, (1Ω max.)
Faulty switch	3	Check connections on switch. Test actuation and resistance, (1Ω max.)
Poor connection to motor	4	Check connections between the wiring harness and motor. Test resistance, (1Ω max.)
Open circuit across motor	5	Test resistance, (7Ω approx.) Check motor (terminal clips, soldered connections, brushes, windings, thermal cut-out)

1

2



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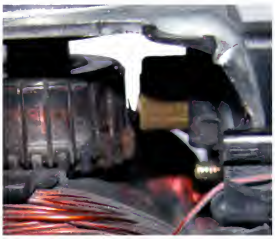


Diagnostic

4.1 Fault diagnosis

Symptom: Burning smell

Possible cause	Image No.	Action
Worn brushbar		Check brushbar for obstructions, wear, incorrect fit - replace if necessary
Motor failure	1	Check post filter for carbon build up. Check motor (commutator, windings, brushes, carbon build-up)

Symptom: Thermal cut-out activating

Possible cause	Image No.	Action
Restricted airflow		Check for blockages-see 'Loss of suction/pick up' page
Motor failure	1	Check motor (commutator, windings, carbon build-up, excess heat)

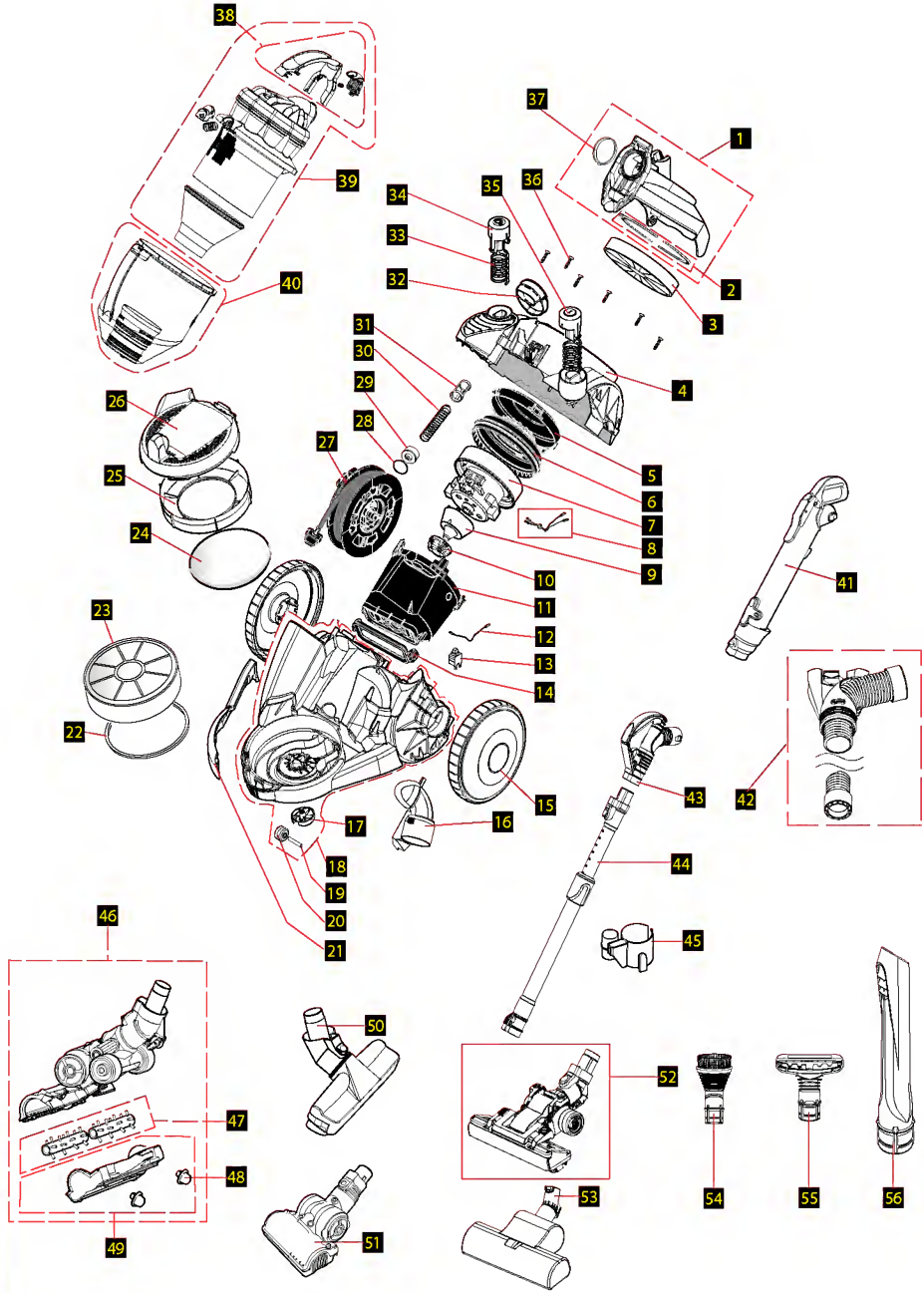
Symptom: Noisy

Possible cause	Image No.	Action
Air leakage		Check all seals and airways-see 'Loss of suction/pick up' page. Check post filter for blockages
Brushbar noise		Check brushbar for obstructions, wear, incorrect fit
Large object in bin		Empty bin
Motor failure	2	Check motor for loose impeller, nut, case, foreign objects in impeller, motor failure

1

2

5.1 Exploded view



5.2 Parts description

ITEM No	DISCRIPTION
1	Pre-filter Cover Assembly
2	Pre-filter Seal Assembly
3	Pre-filter Assembly
4	Upper Motor Cover
5	Motor Bucket Top
6	Fancase Seal
7	Motor
8	Wiring Harness
9	Motor Plate
10	Motor Mount
11	Motor Bucket
12	Single Cable
13	Switch
14	Motor Bucket Mount
15	Rear wheel Assembly
16	Cyclone Inlet Assembly
17	Castor Body
18	Lower Motor Cover
19	Front Castor Axle
20	Castor Roller Assembly
21	Bumper Strip
22	HEPA Seal
23	HEPA Filter
24	Post Filter Pad
25	Post Filter Scrim
26	Post Filter Cover
27	Cable Rewind Unit
28	Bleed Valve 'O'Ring
29	Bleed Valve Cap
30	Bleed Valve Spring
31	Bleed Valve Housing
32	Cable Collar
33	Actuator Spring
34	Cable Rewind Actuator
35	ON/OFF Actuator
36	Upper Motor Cover Screw
37	Exhaust Seal
38	Carry Handle Assembly
39	Cyclone Top Assembly
40	Bin Assembly
41	Telescopic Wand Handle Assembly
42	Hose Assembly
43	Wand Handle Assembly
44	Extension Tube Assembly
45	Tool Storage Asssembly
46	Turbine Head Assembly
47	Brush Bar Assembly
48	Soleplate Fastener
49	Soleplate Assembly
50	Hard Floor Tool Assembly
51	Mini Turbine Head
52	Contacthead
53	Turbo Tool
54	Brush Tool Assembly
55	Stair Tool Assembly
56	Crevice Tool Assembly